

## BACTERIAL BROWN SPOT OF ORCHID CAUSED BY *PSEUDOMONAS CATTLEYAE*

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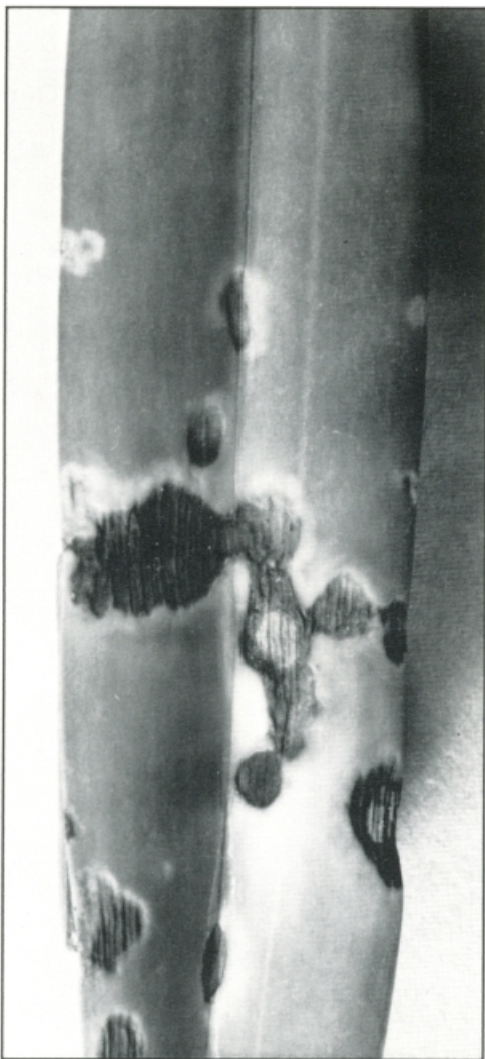


Figure 1. *Pseudomonas cattleyae* on leaf of a *cattleya*-type orchid showing dark, sunken spots.

Orchids are grown for their beautiful and long-lasting flowers that come in a variety of colors and shapes. Many genera of the Orchidaceae family, mostly native to tropical and subtropical parts of the world (3) are used for this purpose. A destructive disease caused by *Pseudomonas cattleyae* (Pavarino) Savulescu occurs on *Phalaenopsis*. Among other host genera for this bacterium are *Cattleya*, *Cypripedium*, *Dendrobium*, *Oncidium*, and *Vanda* (1, 2).

**SYMPTOMS:** The first symptoms on *Phalaenopsis* are soft, water-soaked lesions which eventually turn brown or black. The disease may cause death of seedlings in community pots. Infection on older plants may occur anywhere on the leaf, and can kill the plant if it reaches the growing point. Diseased areas always show a considerable amount of exudate, which contains infectious bacteria that may be carried to other plants by splashing water (1, 2). On *Cattleya*-type orchids the disease appears on the leaves as sunken, black, water-soaked spots (Fig. 1).

Generally lesions are confined to one or more leaves and the infection is not fatal to the plant (2).

**CONTROL:** Cut off and destroy all leaves showing infection (2). Avoid overhead watering as this spreads the bacteria. Current chemical control recommendations can be obtained from the local county Cooperative Extension Service.

**SURVEY AND DETECTION:** Look for water-soaked spots which become sunken and brown to black in color.

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## LITERATURE CITED

1. Burnett, H. C. 1986. Diseases caused by fungi and bacteria. In Handbook on Orchid Pests and Diseases. American Orchid Society, Cambridge, Mass. p. 75-76.
2. Burnett, H. C. 1974. Orchid diseases. Bull. 10, Ha. Dept. of Agric. & Consumer Serv. p. 47-48.
3. Liberty Hyde Bailey Hortorium Staff. 1976. Hortus third. Macmillan Publishing Co., Inc., NY, 1290 p.

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